

RECEIVED

MAR 30 1999

Please type a plus sign (+) inside this box → ☐

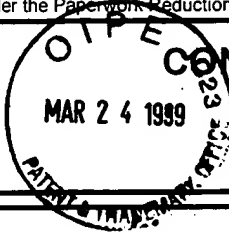
PTO/SB/29 (2/88)

Approved for use through 09/30/2000. OMB 0651-0032

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

GROUP 1700

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

	CONTINUED PROSECUTION APPLICATION (CPA) REQUEST TRANSMITTAL	
	Submit an original, and a duplicate for fee processing. (Only for Continuation or Divisional applications under 37 C.F.R. § 1.53(d))	
		CHECK BOX, if applicable: <input type="checkbox"/> DUPLICATE

Address to: Assistant Commissioner for Patents Box CPA Washington, DC 20231	Attorney Docket No.	154-09245CPA
	First Named Inventor	Chesser, et al.
	Examiner Name	C. H. Kelly
	Group / Art Unit	1721
	Express Mail Label No.	EL193731921US

This is a request for a ☒ continuation or ☐ divisional application under 37 C.F.R. § 1.53(d), CPA of prior application number **08/869,109**, filed on **06/04/97**, entitled _____

Controlled Hydration of Starch in High Density Brine Dispersion

NOTES

FILING QUALIFICATIONS: The prior application identified above must be a nonprovisional application that is either: (1) complete as defined by 37 C.F.R. § 1.51(b), or (2) the national stage of an international application in compliance with 35 U.S.C. 371.

A Notice will be placed on a patent issuing from a CPA, except for reissues and designs, to the effect that the patent issued on a CPA and is subject to the twenty-year patent term provisions of 35 U.S.C. § 154(a)(2). Therefore, the prior application of a CPA may have been filed before, on or after June 8, 1995.

C-I-P NOT PERMITTED: A continuation-in-part application cannot be filed as a CPA under 37 C.F.R. § 1.53(d), but must be filed under 37 C.F.R. § 1.53(b).

EXPRESS ABANDONMENT OF PRIOR APPLICATION: The filing of this CPA is a request to expressly abandon the prior application as of the filing date of the request for a CPA. 37 C.F.R. § 1.53(b) must be used to file a continuation, divisional, or continuation-in-part of an application that is not to be abandoned.

ACCESS TO PRIOR APPLICATION: The filing of this CPA will be construed to include a waiver of confidentiality by the applicant under 35 U.S.C. 122 to the extent that any member of the public who is entitled under the provisions of 37 C.F.R. § 1.14 to access to, copies of, or information concerning the prior application may be given similar access to, copies of, or similar information concerning the other application or applications in the file jacket.

35 U.S.C. 120 STATEMENT: In a CPA, no reference to the prior application is needed in the first sentence of the specification and none should be submitted. If a sentence referencing the prior application is submitted, it will not be entered. A request for a CPA is the specific reference required by 35 U.S.C. 120 and to every application assigned the application number identified in such request, 37 C.F.R. § 1.78(a).

- ☒ Enter the unentered amendment previously filed on **February 1, 1999** under 37 C.F.R. § 1.116 in the prior nonprovisional application.
- ☐ A preliminary amendment is enclosed.
- This application is filed by fewer than all the inventors named in the prior application, 37 C.F.R. § 1.53 (d)(4)
 - ☐ **DELETE** the following inventor(s) named in the prior nonprovisional application:

 - ☐ The inventor(s) to be deleted are set forth on a separate sheet attached hereto.
- ☐ A new power of attorney or authorization of agent (PTO/SB/81) is enclosed
- Information Disclosure Statement (IDS) is enclosed:
 - ☐ PTO-1449
 - ☐ Copies of IDS Citations

08869109

620429

 760.00 CH
 234.00 CH
 504.00 CH

[Page 1 of 2]

Burden Hour Statement: This form is estimated to take 0.4 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box CPA, Washington, DC 20231.

 01 FC:102
 02 FC:102
 03 FC:103

RECEIVED

MAR 30 1999

Please type a plus sign (+) i

his

[+]

PTO/SB/29 (2/98)

Approved for use through 09/30/2000. OMB 0651-0032

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

GROUP 1700

CLAIMS	(1) FOR	(2) NUMBER FILED	(3) NUMBER EXTRA	(4) RATE	(5) CALCULATIONS
TOTAL CLAIMS (37 C.F.R. § 1.16(c) or (j))	48	-20* =	28	x \$ 18.00 =	\$ 504.00
INDEPENDENT CLAIMS (37 C.F.R. § 1.16(b) or (i))	6	-3** =	3	x \$ 78.00 =	234.00
MULTIPLE DEPENDENT CLAIMS (if applicable) (37 C.F.R. § 1.16(d))				+ \$ 260.00 =	0.00
				BASIC FEE (37 C.F.R. § 1.16)	760.00
				Total of above Calculations =	1498.00
Reduction by 50% for filing by small entity (Note 37 C.F.R. §§ 1.9, 1.27 & 1.28).					0.00
* Reissue claims in excess of 20 and over original patent. ** Reissue independent claims over original patent.				TOTAL =	1498.00

6. Small entity status:

a. ☐ A small entity statement is enclosed, if (b) and (c) do not apply.

b. ☐ A small entity statement was filed in the prior nonprovisional application and such status is still proper and desired.

c. ☐ Is no longer claimed.

7. The Commissioner is hereby authorized to credit overpayments or charge the following fees to Deposit Account No. 02-0429(154-09245CPA):

a. ☒ Fees required under 37 C.F.R. § 1.16.

b. ☒ Fees required under 37 C.F.R. § 1.17.

c. ☒ Fees required under 37 C.F.R. § 1.18.

8. ☐ A check in the amount of \$ _____ is enclosed

9. ☒ Other: Attached are the tables referenced to in the Response to Final Office Action.

NOTE:

The prior application's correspondence address will carry over to this CPA UNLESS a new correspondence address is provided below.

10. NEW CORRESPONDENCE ADDRESS

☐ Customer Number or Bar Code Label

☐ New correspondence address below

(Insert Customer No. or Attach bar code label here)

Name					
Address					
City	State	Zip Code			
Country	Telephone	Fax			

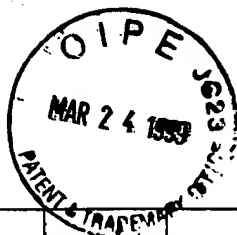
11. SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

Name (Print /Type)	Paula D. Morris
Signature	<i>Paula Morris</i>
Registration No. (Attorney/Agent)	31,516
Date	March 24, 1999

RECEIVED

MAR 30 1999

GROUP 1700



F mmas, Charts, Tables

Properties of Calcium Chloride Solutions

Properties of Calcium Chloride Solutions at 20°C —

1	2	3	4a	4b	5a	5b
% Wt	Specific Gravity	Density (lb _m /gal)	100% CaCl ₂ (lb _m /bbl)	95% CaCl ₂ (lb _m /bbl)	H ₂ O Using 100% CaCl ₂ (gal/bbl)	H ₂ O Using 95% CaCl ₂ (gal/bbl)
1	1.009	8.42	3.53	3.72	41.93	41.91
2	1.017	8.49	7.13	7.50	41.85	41.81
3	1.026	8.56	10.78	11.35	41.78	41.71
4	1.034	8.63	14.50	15.26	41.69	41.60
5	1.043	8.70	18.27	19.23	41.60	41.48
6	1.051	8.77	22.11	23.27	41.49	41.35
7	1.060	8.84	25.99	27.36	41.38	41.22
8	1.068	8.91	29.94	31.52	41.27	41.08
9	1.077	8.98	33.95	35.74	41.14	40.93
10	1.085	9.05	38.03	40.03	41.01	40.77
11	1.094	9.13	42.18	44.40	40.90	40.63
12	1.103	9.20	46.39	48.83	40.76	40.47
13	1.112	9.28	50.69	53.36	40.63	40.33
14	1.122	9.36	55.05	57.95	40.53	40.18
15	1.132	9.44	59.49	62.62	40.40	40.02
16	1.141	9.52	63.98	67.35	40.25	39.85
17	1.151	9.60	68.55	72.16	40.10	39.67
18	1.160	9.68	73.18	77.03	39.95	39.49
19	1.170	9.76	77.91	82.01	39.80	39.31
20	1.180	9.85	82.72	87.07	39.65	39.13
21	1.190	9.93	87.59	92.20	39.48	38.93
22	1.200	10.01	92.53	97.40	39.31	38.73
23	1.210	10.10	97.55	102.68	39.14	38.52
24	1.220	10.18	102.62	108.02	38.95	38.30
25	1.231	10.27	107.82	113.49	38.76	38.08
26	1.241	10.36	113.09	119.04	38.57	37.86
27	1.252	10.44	118.44	124.67	38.37	37.62
28	1.262	10.53	123.85	130.37	38.16	37.38
29	1.273	10.62	129.39	136.20	37.96	37.14
30	1.284	10.71	135.00	142.11	37.75	36.90
31	1.295	10.81	140.70	148.11	37.53	36.64
32	1.306	10.90	146.48	154.19	37.30	36.38
33	1.317	10.99	152.32	160.34	37.06	36.10
34	1.328	11.08	158.25	166.58	36.81	35.81
35	1.340	11.18	164.32	172.97	36.57	35.53
36	1.351	11.27	170.47	179.44	36.32	35.24
37	1.363	11.37	176.76	186.06	36.06	34.95
38	1.375	11.47	183.13	192.77	35.81	34.65
39	1.387	11.57	189.53	199.50	35.53	34.33
40	1.398	11.67	195.99	206.31	35.23	33.99

Properties of Calcium Chloride Solutions at 20°C (continued)

6	7	8a	8b	9	10
CaCl ₂ (mg/L)	Chlorides (mg/L)	Volume Increase Factor	Volume Increase Factor	Crystallization Point (°F)	A _w
10,085	6,454	1.002	1.002	31.1	0.998
20,340	13,018	1.004	1.004	30.4	0.996
30,765	19,690	1.006	1.007	29.5	0.993
41,360	26,470	1.008	1.010	28.6	0.989
52,125	33,360	1.011	1.013	27.7	0.984
63,060	40,358	1.013	1.016	26.8	0.979
74,165	47,466	1.016	1.019	25.9	0.973
85,440	54,682	1.018	1.022	24.6	0.967
96,885	62,006	1.021	1.026	23.5	0.959
108,500	69,440	1.024	1.030	22.3	0.951
120,340	77,018	1.027	1.034	20.8	0.942
132,360	84,710	1.030	1.038	19.3	0.933
144,625	92,560	1.034	1.041	17.6	0.923
157,080	100,531	1.037	1.045	15.5	0.912
169,725	108,624	1.041	1.049	13.5	0.900
182,560	116,838	1.044	1.054	11.2	0.888
195,585	125,174	1.048	1.059	8.6	0.875
208,800	133,632	1.051	1.064	5.9	0.862
222,300	142,272	1.056	1.068	2.8	0.847
236,000	151,040	1.060	1.073	-0.4	0.832
249,900	159,936	1.065	1.079	-3.9	0.816
264,000	168,960	1.069	1.084	-7.8	0.800
278,300	178,112	1.074	1.090	-11.9	0.783
292,800	187,392	1.078	1.097	-16.2	0.765
307,625	196,880	1.084	1.103	-21.0	0.746
322,660	206,502	1.089	1.109	-25.8	0.727
337,905	216,259	1.095	1.116	-31.2	0.707
353,360	226,150	1.100	1.124	-37.8	0.686
369,170	236,269	1.107	1.131	-49.4	0.665
385,200	246,528	1.113	1.138	-50.8	0.643
401,450	256,928	1.120	1.146	-53.2	0.620
417,920	267,469	1.126	1.155	-59.5	0.597
434,610	278,150	1.134	1.163	-6.9	0.573
451,520	288,973	1.141	1.173	+4.3	0.548
468,825	300,048	1.149	1.182	+14.4	0.522
486,360	311,270	1.156	1.192	+24.1	0.496
504,310	322,758	1.165	1.202	+33.4	0.469
522,500	334,400	1.173	1.212	+42.1	0.441
540,755	346,070	1.183	1.224	+49.6	0.413
559,200	357,888	1.192	1.236	+55.9	0.384

Physical Properties of Sodium Chloride Solutions (at 20°C)

1 % Wt	2 Specific Gravity	3 Density (lb _m /gal)	4 NaCl (lb _m /bbl)	5 H ₂ O (gal/bbl)	6 NaCl (mg/L)	7 Chlorides (mg/L)	8 Vol. Incr. Factor	9 Crystallization Point (T)	10 A _w
1.0	1.007	8.40	3.5	41.87	10,070	6,108	1.003	31.0	0.996
2.0	1.014	8.46	7.1	41.75	20,286	12,305	1.006	30.0	0.989
3.0	1.021	8.52	10.7	41.63	30,630	18,580	1.009	28.8	0.983
4.0	1.029	8.58	14.4	41.46	41,144	24,957	1.013	27.7	0.976
5.0	1.036	8.65	18.2	41.34	51,800	31,421	1.016	26.5	0.970
6.0	1.043	8.70	21.9	41.10	62,586	37,963	1.020	25.3	0.964
7.0	1.050	8.76	25.8	41.02	73,500	44,584	1.024	24.1	0.957
8.0	1.058	8.83	29.7	40.86	84,624	51,331	1.028	22.9	0.950
9.0	1.065	8.89	33.6	40.70	95,850	58,141	1.032	21.5	0.943
10.0	1.073	8.95	37.6	40.54	107,260	65,062	1.036	20.2	0.935
11.0	1.080	9.01	41.6	40.38	118,800	72,062	1.040	18.8	0.927
12.0	1.088	9.08	45.7	40.19	130,512	79,166	1.045	17.3	0.919
13.0	1.095	9.14	49.9	40.00	142,350	86,347	1.050	15.7	0.910
14.0	1.103	9.20	54.1	39.85	154,392	93,651	1.054	14.1	0.901
15.0	1.111	9.27	58.4	39.66	166,650	101,087	1.059	12.4	0.892
16.0	1.118	9.33	62.7	39.44	178,912	108,524	1.065	10.6	0.882
17.0	1.126	9.40	67.1	39.25	191,420	116,112	1.070	8.7	0.872
18.0	1.134	9.46	71.5	39.03	204,102	123,804	1.076	6.7	0.861
19.0	1.142	9.53	76.0	38.85	216,980	131,616	1.081	4.6	0.850
20.0	1.150	9.60	80.6	38.64	229,960	139,489	1.087	2.4	0.839

Physical Properties of Sodium Chloride Solutions

Formulas, Charts, Tables

Physical Properties of Sodium Chloride Solutions (at 20°C) (continued)

1 % Wt	2 Specific Gravity	3 Density (lb _m /gal)	4 NaCl (lb _m /bbl)	5 H ₂ O (gal/bbl)	6 NaCl (mg/L)	7 Chlorides (mg/L)	8 Vol. Incr. Factor	9 Crystallization Point (T)	10 A _w
21.0	1.158	9.66	85.2	38.43	243,180	147,508	1.09	0.0	0.827
22.0	1.166	9.73	89.9	38.22	256,520	155,600	1.099	-2.5	0.815
23.0	1.174	9.80	94.6	37.97	270,020	163,789	1.106	-5.2	0.802
24.0	1.183	9.87	99.5	37.74	283,800	172,147	1.113	+11.4	0.788
25.0	1.191	9.94	104.4	37.50	297,750	180,609	1.120	+15.0	0.774
26.0	1.199	10.01	109.3	37.27	311,818	189,143	1.127	+25.0	0.759

METRIC CONVERSIONS:

$$\text{NaCl (g/L)} = \text{NaCl (lb}_m\text{/ft)} \times 2.85714$$

$$\text{H}_2\text{O (mL/L)} = \text{H}_2\text{O (gal/bbl)} \times 23.8086$$

$$\text{NaCl (ppm)} = \% \text{ wt} \times 10,000$$

$$\text{Cl}^- \text{ (mg/L)} = \text{NaCl (mg/L)} \times 0.6066$$

$$\text{NaCl (mg/L)} = \text{Cl}^- \text{ (mg/L)} \times 1.65$$

$$\text{mg/L} = \text{ppm} \times \text{specific gravity}$$

FORMULAS:

$$\text{Salt (lb}_m\text{/bbl water)} = \text{Volume increase factor} \times \text{NaCl (lb}_m\text{/bbl)}$$

$$\text{Specific gravity} = 1.0036 [0.99707 + 6.504 (10^{-3})(\% \text{ wt NaCl}) + 4.395(10^{-5})(\% \text{ wt NaCl})^2] \text{ or } 1 + 1.94(10^{-6})(\text{Cl}^-, \text{mg/L})^{0.95}$$

$$\text{Volume increase factor} = 1.00045 + 2.72232(10^{-3})(\% \text{ wt NaCl}) + 8.15591(10^{-5})(\% \text{ wt NaCl})^2 \text{ or } 1 + 5.88 (10^{-8})(\text{Cl}^-, \text{mg/L})^{1.2}$$

$$A_w = 0.99755 - 4.3547(10^{-3})(\% \text{ wt NaCl}) - 1.8205(10^{-4})(\% \text{ wt NaCl})^2$$

Formulas, Charts, Tables